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# From the Sociology of Things to the “Internet of Things”

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## Abstract

In contemporary philosophical and social studies, the issues which are related to perceptual experience come to the fore, enhanced by attention to the things of reality in their immediate givens sometimes in everyday experiences. Modern sociology and social philosophy refer to things as to the something that had not previously shown as a relatively independent object without being the representator of the other types of reality and relationships in the world: social, economic (in terms production, distribution and consumption), political, etc. In our opinion, now a thing acquires a special status in philosophical studies, becoming a kind of condensation point of being. Such attention to the things due to several factors, including: the modern understanding of space and time, the expansion of the current "real" crisis idealistic philosophical ideas, the reorientation of phenomenology. In a situation of rapid development of information technologies there is such a phenomenon as the "Internet of things", which captures not only the conjugation of human individuals in the information network, but also systems and hardware devices that can often go without human intervention. Such a phenomenon requires a philosophical rethinking, and represents the focus on perceptual and bodily aspects of life in the modern world.

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## 1. Introduction to the problem

Nowadays surrounding us reality and knowledge of this reality are developing very fast. Penetrations of information technologies in all aspects of modern and postmodern types of society have changed its social face.

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Today, multimedia and networking technologies permeate social relations, social institutions, industrial and economic relations, financial and political relations.

A virtual world created by computer technologies penetrates into the real world and intertwined with it. This is due to not only the extend of information technologies as such. Now there are studies that pose the problem of virtualization of political and social relations, which attract virtual mode. We can mention the work of Michael Hardt and Antonio Negri about the modern phenomenon of post-political and post-economics virtualization, formation of universal command and control arrangements in society, overcoming the boundaries of national sovereignty of separated countries (Hardt & Negri, 1979, 2004).

If we talk about society, the modern sociological and socio-philosophical studies are also undergoing significant changes. It is worth mentioning a number of studies about the place of the things in the space of surrounding world of things in social relations. This study of the influence of the world of things, their economic component, place in the social division of labor began long time ago. Here we can mention the Marxist tradition, which considers things of surrounding material world as representators of social relations, as a result of the class struggle. Such, for example, numerous studies of the socio-economic aspects of masterpieces, in which were often noticeable extreme reductionist views on the work of art as a result, the product of the class struggle as something that manifests consciousness of a certain social class, as a result of unresolved social and economic contradictions, reflected in the life and work of an artist.

## 2. Material world and social relations

It is worth to mention the works of G. Simmel (Simmel, 1994), which addresses the issue of material things as representators of social relations. The things are seen as something that is identical to the social meaning of the thing, it is something that repeats the contradictions of the individual and society, fixes a kind of social ontology of things, and things act as points of contact of different types of social spaces.

Continued research of the world of things in social aspect can be found in the works of I. Goffmann, in his theory of frame analysis (Goffman, 1971, 1974). Goffman considers various forms of social situations as examples of standard frames designed by the means of the material world, involved in certain types of situations. Here are the things of the world again act as fixers certain area and the process of social interaction.

Consideration things like the center of the convergence of social interactions, as the quintessence of social processes in creating specifically social scenarios, such as scientific research and empirical test results of the theory of L. Pasteur or diesel engine design in the works of B. Latour. B. Latour is considering the thing as a nodal point of specific social network interactions. And the thing is not simply represents certain social processes in the micro- or macro perspective, and acts as their starting point. For example, a broad public debate around open L. Pasteur bacteria and their impact on the human's health, the relevant decisions of power- administrative structures in relation to mandatory hygiene measures would not have been possible without the bacteria themselves, initiated due to the complex actions of the scientists these social processes (Latour, 1993).

Should be noted the works of J. Baudrillard, who tried to present things as representators of ideological constructions of bourgeois capitalist society (Baudrillard, 2002). He tried to show not only the social statics, which fixes things and their representational functions (for example, fixing the social status of the owner), but the dynamics and aspirations of different social strata through the things of daily life, car, home tend to change this status, either by themselves things label themselves socio- economic contradictions .

You can find a number of researchers considering things of surrounding material world as representators of those or other forms of social relations and processes in their context (Corrigan, 1997), (Cheal, 1988), (Frow, 1997), (Weiner, 1992).

It should be said, that not all sociology theorists consider surrounding world of objects in social semiotic sense, in the case that the universe is a representation of social processes and social phenomena. For example, studies of I. Kopytoff of cultural biography of things, i.e. to its functions and roles, how things play in human society (in his works, there are examples of communities not only examples of Western-style). Considering the features of huts of the savages Kopytoff notes the sequence of changes of social roles, which undergoes a hut , being first housing for newly-married, then becoming a venue for guests, and finally transformed into the stable (Kopytoff, 1986). Here we

are interested in primarily special attention to the thing as something that retains its objectivity and thanks to it has the opportunity to participate in the processes of social labeling.

### 3. Phenomenology and material world

It should be noted the researches of representatives of phenomenological line in sociology and social philosophy, mainly A. Schutz (Schutz, 1967). He refers to the late works of Husserl “problematic possibilities” defining certain things in perceptual processes of recognition, categorization and inclusion in the social world interactions. Phenomenological approach in general is remarkable that captures in things not only as a representators of social relationships, processes, but also as qualities and attitudes. In this respect, things act as a kind of universal characters that can fix the various social meanings defined not only a researcher and social philosopher, but often a philistine.

It should be noted that increased attention to the things, is observed in the works of other representatives of philosophical studies. For example, H.-U. Gumbrecht criticizes hermeneutic line in the social sciences, which has long dominated. Western philosophical thought, according to Gumbrecht, based on finding the underlying meanings of things and phenomena on a constant search of Platonic ideas that constituted the essence of things. Now, in the modern world there is increasing attention to the things of the material world in their material aspect, certain direct representation in the experience, in the structures of everyday human practices, not only in the scientific discourse. In humanitarian sciences it's necessary to cease such an approach that would have provided an opportunity to develop a special conceptual apparatus, which can fix not only the hermeneutical dimension of things, their ability to interpret other types of reality “social”, “mental”, and give the opportunity to present things in a direct experience. Such a representation is fixed in Gumbrecht's notion of “presence” (Gumbrecht, 2004).

A similar position is occupied by the Italian philosopher G. Agamben, who analyzes the phenomenon of “profanity” by which he understands the phenomenon of returning of the things into the world to make them able to be regarded as something accessible to their direct use. Cultural facilities, such as artifacts, placed in museums, architecture, works of cinematic art, distancing us from things which are “become saint”. This withdrawn this things from the direct consumption during everyday action. So, movies aestheticizes feelings life situations, dramatic circumstances and turns them into an aesthetic object, a work of architecture, becoming objects of tourist attention no longer perform the inherent limitations of their functions. Culture, especially modern, opposes things directly in their quest to be “here and now” (Agamben, 2007).

Thus, in sociology, social philosophy and other areas of the humanities, we can see the clear tendency to pay more attention to material things, perceptual objects of reality. We want to pay attention to the interpretation of the material world, to the things that capture their original independence, and not merely the universal semiotic nature, which allows them to become representators of any type of reality or defined scientific subjects of different disciplines and theories. By itself, this phenomenon is relative to “isolation” of things of the material world, and can testify semiotic fatigue culture from circulation disembodied meanings to total transformation just symbolic means, lack of contact with the immediacy of being a real space surrounding the modern man. This phenomenon has a dialectical character because there is not any need to scratch around and initiated social, economic, political being. Modern man lives in the era of information over-saturation. The information that several hundred years ago, people received during the year, today we learn in one day. Oversaturation of information, abundance of data, virtualization in many spheres of life leads to the fact that some information is not absorbed, and in addition, there is an effect of the information glut, the reverse side of which, is the process of increasing of attention to the outside world in its “natural” originality and relative liberty. As an example can be serve the process when users of the Internet and social networking members actively post their photos taken as evidence of real travel “contact” with various attractions, places and the like. Experts note not only the spreading of the distance form of education, now associated with its availability, but the fact appreciation of traditional (especially higher education), making possible direct contact “face to face” teacher and student, as a pledge of “real quality education”.

#### 4. The phenomenon of «Internet of things»

If we continue the reflection on the sphere of information technologies, there is especially important for us phenomenon, the phenomenon of “Internet of Things” (Internet of Things, IOT). This phenomenon is the process of changing the nature of information and network technologies in the world today.

Today, the Internet connects not only people, but also a variety of devices and gadgets ranging from mobile phones to “smart houses” elements of the manufacturing sector, financial processes (specialists in these areas are aware of the existence of traders programs that implement, for example, specific trading strategies without human intervention or with minimal participation in the process of tracking the dynamics of the market). Moreover, some devices can track the status of human health and to share this information with other devices. The concept of converging technologies and Human Enhancement - improve human nature through technological means, with associated modern transhumanist projects is spreading.

Now information network technologies unite not only people but also the things themselves and production processes, which are converted into a special reality coexisting along with the man. Step by step from a kind of subordinate element and representators things become active element and meaningful. Experts say that the interpenetration of the real world and the virtual world. This is evident in the mass propagation and developing identification barcodes, based on different technology platforms. Bar codes identify a particular product and this information is accessible to all Internet users. Thus, the apparent trend is not only the material world of virtualization and erasing boundaries of material and virtual, but also the increasing value of the things themselves in the world around the person.

Some experts point to the fact that information technologies “lean” not only to think and perform certain functions instead of a person (that was a traditional research field of artificial intelligence theorists and practicing engineers), but also acquire other characteristics inherent in human experience, such as the processes of perception. Some theorists see this as a process of learning things sensory experience (what today is due the rapid development of sensor technology).

If we rethink this phenomenon with philosophical positions, it is worth noting the following:

1. Today altering the general relationship of man to the material things of the world and it comes in different spheres of reality and knowledge (we already mentioned sociology research in the field of aesthetics).

2. Increasing the role of the material world and the things. They gained special objectivity and this can be a symptom of the deeper aspects of the relationship of modern man to being. Modern man often lacks full contact with being overloaded with information in the world, a world that is becoming increasingly virtual. Virtualization, and increased attention to the real thing - they are two inseparable trends of modern man.

3. These processes are reminiscent of strengthening of ontology as a basic philosophical discipline in the history of philosophy, during the formation of the views of M. Heidegger, N. Hartmann. In the late nineteenth and the first half of the twentieth century, interest in ontology and philosophy was lost. It was mainly focused on epistemological investigations. We observe a similar process and now, when the Anglo-American philosophy, post-analitics is one of the main trends in the development of philosophical knowledge, but along with it exist the researches that we have indicated. The growing attention to the ontological problems of being it is not a case, because the being it is not only the world, which surrounds a human, but a human himself. As we tried to show - in the modern era of information technologies development, human surrounding space and the world of things acquire some ontological contours. This does not mean that the person is reduced to the level of the subjects, things. On the contrary, the things themselves acquire their distinctive ontological specificity and become closer to man. Problem of modern man is to understand the mutual mediation themselves and others things, learn to look for harmony with the things of the world, they try to turn them to “improvised means” (Zuhandene) (Heidegger, 1978) into something that is other-being of the human “I” .

#### 5. Conclusions

Thus, now the attention to the surrounding world in a situation of development of information technology has become one of the main directions of development of the humanities. Starting in the research of sociologists, as

attempts to study the objective world in the context of semiotic means of fixation and representations of social processes and phenomena. This experiments from rethinking of things of material world turned into ontological understanding of human experiments and its environment in terms of the development of information technology and cyberspace. One of the most important tasks of modern philosophy is a fundamental principle of search of principles of the new ontology, reconceived the human and the surrounding material world in such a unity, which would have turned things around him from a means into topoi otherness human "I" .

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